

KUMC Research Support Facility (Building No. 30)

Infrastructure Improvements Phase 2

Scope of Work for Design Services

Research Support Facility is a four story building and serves as KUMC's main vivarium. The scope of this project is to renovate and augment the emergency and normal power systems serving this facility. The design services shall include an initial evaluation phase to recommend the optimal solutions for the current and future electrical power needs of the building. Following are the key goals of the renovation:

- Evaluate the required size and location of a new emergency power generator and provide a single generator to replace two existing generators. Evaluation will be based on present and anticipated future needs of the building.
- Determine optimal location for new emergency power switchgear and provide new emergency switchgear and feeders to existing distribution. The configuration of the emergency power distribution and transfer switches shall comply with Life Safety Codes. Evaluate the condition and capacity of existing transfer switches and replace if necessary.
- Provide new double ended normal power switchgear with a tie break ready to receive power from two separate transformers and connected to existing distribution system on first floor and second floor.
- The design services shall also include the following alternates:
 - Alternate #1: Evaluate the optimal route and method to run a new medium voltage feeder from existing pad mounted MV switch to a new transformer to create a redundant normal power feed to the building.
 - Alternate #2: Evaluate condition of existing normal and emergency power distribution systems throughout the building and replace and or modify as necessary and as permitted by available funding. The review shall consider condition of equipment, location of switchgear, availability of parts and recommend the optimal solution for available funds. Some other items to include in the review are; provide emergency power outlets in animal rooms and other critical areas (e.g. animal carcass storage cooler on first floor) those, provide new centrally located normal and emergency power panels on ground, first and third floors for current requirements and future growth, relocate power panels and transformer out of the cage wash area on ground floor.